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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,680	09/24/2003	Hee-Keun Park	03202-URS	8374

33804 7590 11/07/2006

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EXAMINER

LE, DANG D

ART UNIT PAPER NUMBER

2834

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,680

Applicant(s)

PARK, HEE-KEUN

Examiner

Dang D. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/24/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892) .
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it contains the words "comprised" at line 1 and "comprises" at line 2. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 1 is objected to because of the following informalities: claim 1 recites the term "shaftless" in line 1 and then "shaft" in the other lines, which contradicts itself. It is not clear if the applicant is trying to claim a motor without a shaft or with a shaft. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwao (5,461,498) in view of Mizobuchi et al. (4,820,949) and further in view of Porter (5,179,307).

Regarding claim 1, Iwao shows a shaftless mirror, comprised of a mirror body having a configured shaft (2) rotatably jointed to a mirror base (1), said shaft being extended radially to form a plurality of mirror sides, said mirror base being a square

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hollow casing (4) having at least an opening penetrating the casing itself in its top end and lateral wall, and an electrical device (40) for driving said mirror body, in which:

- A recess (8a, 8b) for positioning a shaft end is formed at respective corresponding positions of the lower surface of a top end and the upper surface of a bottom end in said mirror base; the electrical device is extended to the upper surface of the bottom end of the mirror base to form a plurality of electromagnets (5), which is aligned surrounding said recess in the upper surface of the bottom end of said mirror base;
- Said shaft having a plurality of permanent magnets (3) in its bottom face is tapered at both ends for mating with the recesses of said mirror base so that each shaft end can be rotatably fitted in each recess (open ended claims – bearings and oil may be provided in the recesses).

Iwao does not show the mirror as the fan base with the fan blades and a magnetic N-zone, an S-zone, and a Neutral zone are arranged repeatedly and rotationally in every permanent magnet, and the magnetic zones of each electromagnet are controlled correspondingly to that of each said permanent magnet.

Mizobuchi et al. shows the scanner can be made as an axial flow fan for the purpose of providing a cooling motor.

Porter shows the rotor can be made with a magnetic N-zone, an S-zone, and a Neutral zone are arranged repeatedly and rotationally in every permanent magnet, and the magnetic zones of each electromagnet are controlled correspondingly to that of

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each said permanent magnet for the purpose of activating two electromagnets at the same time in order to increase output torque.

Since Iwao, Mizobuchi et al. and Porter are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the scanner as a fan and to distribute the N, S magnets with neutral zone as respectively taught by Mizobuchi et al. and Porter for the purposes discussed above.

Regarding claim 2, Iwao also shows each shaft end being substantially point-contacted with each recess.

Information on How to Contact USPTO

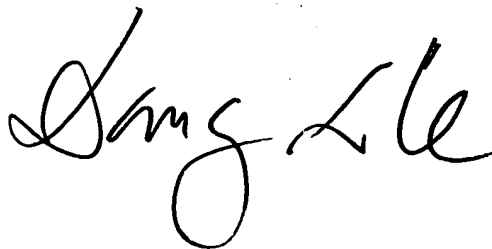
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D. Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/2/06

A handwritten signature in black ink, appearing to read "Dangle", written in a cursive style.

DANGLE
PRIMARY EXAMINER